



# Ultraflex<sup>TM</sup> LFT

**Premium Large-Format Tile Mortar with Polymer**



## DESCRIPTION

Ultraflex LFT is a premium nonsag medium-bed and thin-set mortar for large-format tile and stone for interior/exterior floor, wall and countertop installations. This mortar has a high content of unique dry polymer, resulting in excellent adhesion to the substrate and tile.

## FEATURES AND BENEFITS

- Polymer-enriched for high performance and deformability
- Nonsag formula for large-format tile and stone in wall applications
- Nonslump for large-format tile and stone in floor applications. Can be used as a medium bed up to 3/4" (19 mm) thick.
- Smooth and creamy consistency makes it easy to apply.
- Low-Dust Technology reduces dust by 90%, resulting in a cleaner and healthier environment.

## INDUSTRY STANDARDS AND APPROVALS

**ISO 13007:** Classification C2TES1P1

**ANSI:** Exceeds ANSI A118.4 and ANSI A118.11 bond strength requirements

### LEED Points Contribution

MR Credit 5, Regional Materials*	Up to 2 points
IEQ Credit 3.2, Construction IAQ Management Plan – Before Occupancy	1 point
IEQ Credit 4.1, Low-Emitting Materials – Adhesives & Sealants	1 point
IEQ Credit 4.3, Low-Emitting Materials – Flooring Systems	1 point

### LEED Points

\* Using this MAPEI product may help contribute to LEED certification of projects in the categories shown above. Points are awarded based on contributions of all project materials

## WHERE TO USE

- Interior/exterior residential and commercial installations on floors and walls in dry and wet areas (see wall specifications under "Limitations")
- Installation of ceramic and porcelain tile, cultured stone, quarry tile, pavers, Saltillo tile, and most types of marble, granite and natural stone

## LIMITATIONS

- Install only at temperatures between 40°F and 95°F (4°C and 35°C).
- Do not use for moisture-sensitive stone (green marble; some limestone and granite), agglomerate tiles, cultured marble or resin-backed tiles. Instead, use suitable epoxy or urethane adhesives. See respective Technical Data Sheet for more information.
- Do not use over dimensionally unstable substrates such as hardwood flooring, oriented strand board (OSB), substrates containing asbestos, or metal. See "Suitable Substrates" section.
- To use directly over gypsum-based patching or leveling substrates, apply a suitable sealer before use.
- Use a white mortar when installing light-colored stones and translucent marble.
- Consult local building code requirements for use on exterior commercial building facades.

- Installations of tile over nonporous surfaces, such as waterproofing membranes and existing tile, may require extended setting/curing times. Dimensionally weak stone (limestone, travertine) is limited to thin-set applications only.
- Cure for 28 days before water immersion.

## SUITABLE SUBSTRATES

- Concrete (cured at least 28 days)
- Masonry cement block, brick, cement mortar beds and leveling coats
- Cement backer units (CBU) – see manufacturer's installation guidelines
- Gypsum wallboard – interior dry walls only (priming may be required)
- APA and COFI Group 1 exterior-grade plywood (interior, residential and light commercial in dry conditions only)
- Properly prepared vinyl composition tile (VCT), vinyl and cutback residue (interior installations)
- Properly prepared existing ceramic and porcelain tile, quarry tile and pavers (interior and dry conditions only)
- MAPEI waterproofing, crack-isolation and sound-control membranes

## SURFACE PREPARATION

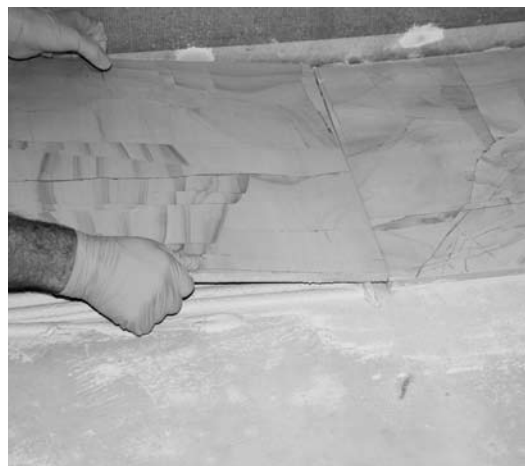
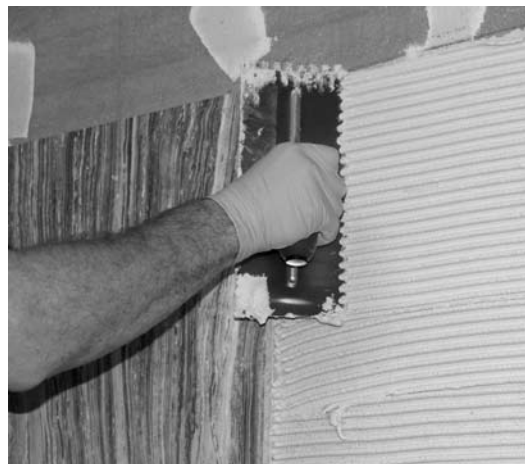
- All substrates should be structurally sound, stable, dry, clean and free of any substance or condition that may reduce or prevent proper adhesion.
- See MAPEI "Surface Preparation Requirements" document for tile and stone installation systems.

## MIXING

1. Before starting, take appropriate safety precautions. See MSDS for details.
2. Into a clean mixing container, pour about 6 to 6.5 U.S. qts. (5,68 to 6,15 L) of clean potable water.
3. Gradually add 50 lbs. (22,7 kg) of powder while slowly mixing.
4. Use a low-speed mixing drill (at about 300 rpm), with an angled cross blade mixer or double box mixer. Mix thoroughly until mixture becomes a smooth, homogenous, lump-free paste. Avoid prolonged mixing.
5. Let mixture stand ("slake") for 5 minutes.
6. Remix.
7. If mixture becomes heavy or stiff, remix without adding more liquid or powder.

## PRODUCT APPLICATION

1. Choose a notched trowel (see chart) with sufficient depth to achieve > 85% mortar contact to both the tile and substrate for all interior applications, and > 95% for exterior installations, commercial floor and wet applications. It may be necessary to back-butter in order



to reach these requirements. (Refer to ANSI A108.5 specifications and TNCA guidelines.)

2. With pressure, apply a coat by using the trowel's flat side to key mortar into substrate.
3. Apply additional mortar, combing it in a single direction with the trowel's notched side.
4. Spread only as much mortar as can be tiled while still tacky. Open time can vary with jobsite conditions.
5. Place the tiles firmly into the wet mortar. Push the tiles back and forth in a direction perpendicular to trowel lines, to collapse the mortar ridges and help achieve maximum coverage. Ensure proper contact between mortar, tile and substrate by periodically lifting a few tiles to check for acceptable coverage.
6. Remove excess mortar from the joint areas so that at least 2/3 of the tile depth is available for grouting (see ANSI A108.10 guidelines).
7. Provide for expansion and control joints as specified per TCNA Detail EJ171 or TTMAC Specification Guide 09300 Detail 301EJ.

## CLEANUP

1. Clean hands, tools and tile while mortar is fresh.
2. Protect from traffic for 24 hours, and from heavy traffic for 7 days. Protect from frost and rain for 7 days.

## Product Performance Properties

### ISO 13007 Classification

ISO 13007 Classification	Classification Requirement	Test Characteristic
C2 (cementitious, improved adhesion)	≥ 145 psi (1 MPa) after standard aging, heat aging, water immersion and freeze/thaw cycles	Using porcelain tile
T (vertical slip resistance)	≤ 0.019" (0,5 mm)	Using porcelain tile
E (extended open time)	≥ 72.5 psi (0,5 MPa) after 20 and 30 minutes	Using glazed ceramic wall tile
S1 (normal deformation of mortar)	≥ 0.1" (2,5 mm)	–
P1 (normal adhesion to plywood)	≥ 72.5 psi (0,5 MPa)	Using porcelain tile

### ANSI Specification

28-Day Test	Test Method	Results	ANSI Specification
Impervious ceramic (porcelain) mosaics shear strength	ANSI A118.4	310 to 450 psi (2,14 to 3,10 MPa)	> 200 psi (1,38 MPa)
Glazed wall tile shear strength	ANSI A118.4	570 to 780 psi (3,93 to 5,38 MPa)	> 300 psi (2,07 MPa)
Quarry tile to quarry tile shear strength	ANSI A118.4	310 to 450 psi (2,14 to 3,10 MPa)	> 150 psi (1,03 MPa)
Quarry tile to plywood shear strength	ANSI A118.11	170 to 310 psi (1,17 to 2,14 MPa)	> 150 psi (1,03 MPa)

### Shelf Life and Application Properties\*

at 73°F (23°C) and 50% relative humidity



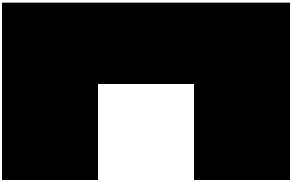

Shelf life..... 1 year  
 Open time..... 30 to 35 minutes  
 Pot life..... 4 hours  
 Time before grouting (walls) ..... 8 to 16 hours  
 Time before grouting (floors) ..... 24 hours

\* Cold temperature or high humidity may alter these properties.

### Packaging

Product Code	Size And Color
11250000	Bag: 50 lbs. (22,7 kg), gray
11350000	Bag: 50 lbs. (22,7 kg), white

### Approximate Product Coverages per 50 lbs. (22,7 kg)

Typical Trowel	Coverage**
1/4" x 1/4" x 1/4" (6 x 6 x 6 mm) 	85 to 95 sq. ft. (7,90 – 8,83 m²)
1/4" x 3/8" x 1/4" (6 x 10 x 6 mm) 	65 to 75 sq. ft. (6,04 – 6,97 m²)
1/2" x 1/2" x 1/2" (12 x 12 x 12 mm) 	40 to 50 sq. ft. (3,72 – 4,65 m²)
3/4" x 9/16" x 3/8" (19 x 14 x 10 mm) 	35 to 40 sq. ft. (3,25 – 3,72 m²)

\*\* Trowel dimensions are width/depth/space. Actual coverages will vary according to substrate profile and tile type.

# Ultraflex™ LFT



## RELATED DOCUMENTS

Reference Guide: Surface Preparation Requirements for tile and stone installation systems	RGTO309*
---	----------

\* At [www.mapei.com](http://www.mapei.com).

Refer to MAPEI's Material Safety Data Sheet (MSDS) for specific data related to VOCs, health and safety, and handling of product.

## STATEMENT OF RESPONSIBILITY

Before using, user shall determine the suitability of the product for its intended use and user alone assumes all risks and liability whatsoever in connection therewith. **ANY CLAIM SHALL BE DEEMED WAIVED UNLESS MADE IN WRITING TO US WITHIN FIFTEEN (15) DAYS FROM DATE IT WAS, OR REASONABLY SHOULD HAVE BEEN, DISCOVERED.**

We proudly support the following industry organizations:



**MAPEI Headquarters of the Americas**  
1144 East Newport Center Drive  
Deerfield Beach, Florida 33442  
Phone: 1-888-US-MAPEI  
(1-888-876-2734)

**Technical Services**  
1-800-992-6273 (U.S. and Puerto Rico)  
1-800-361-9309 (Canada)  
**Customer Service**  
1-800-42-MAPEI (1-800-426-2734)

**For the most current BEST-BACKED™ product data and warranty information, visit [www.mapei.com](http://www.mapei.com).**

**Edition Date:** April 13, 2010  
PR5627 LFTD\_D10Ev © 2010 MAPEI Corporation.  
All Rights Reserved. Printed in the USA.